

**REVIEW OF THE SPECIES OF *TELEPHANUS* ERICHSON
FROM THE MALAGASY REGION, WITH
DESCRIPTION OF A NEW SPECIES
(COLEOPTERA: SILVANIDAE)**

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Abstract.—Six species of *Telephanus* Erichson are recorded from the Malagasy Region, including one new species, *Telephanus gomyi*, from Réunion Island. *Telephanus spinosus* Schaufuss is considered a junior synonym and junior homonym of *Telephanus spinosus* Grouvelle. A key to the species and illustrations of the adults are provided and the affinities of this group of species are briefly discussed.

While examining a collection of Cucujidae (sens. lat.) from the Mascarene Islands (Réunion and Mauritius) in the Muséum d'Histoire Naturelle, Geneva I discovered three specimens of an apparently undescribed apterous, microphthalmic species of *Telephanus*. This led to an examination of the types and other specimens of all five species described from the Malagasy Region (Madagascar and the Mascarene Islands). This study revealed three distinctive groups of species and raised questions over the generic placement of the Old World members of *Telephanus*.

Of about 100 described species of *Telephanus*, Hetschko (1930) listed only eight from the Old World, five from the Malagasy Region and three from southeastern Asia. The remainder are confined to the New World. Adults of *Telephanus* are recognized by the combination of the following character states: securiform maxillary palpi; elongate antennal scapes, frons without longitudinal grooves; closed procoxal cavities; tarsomeres II–III simply lobed; prothorax and often elytra laterally spinose; aedeagus inverted, parameres on ventral aspect of median lobe.

Three species, *Telephanus antennatus* Waterhouse, described from Dory, New Guinea; *T. pictus* Waterhouse, described from Borneo; and *T. spinicollis* Waterhouse, described from Aru, Indonesia, were transferred from *Telephanus* to *Psammoecus* Latreille by Nevermann (1931:198). I have examined the type specimens, housed in the British Museum (Natural History), of those species and agree with Nevermann's conclusion as to their assignment.

It also seems unlikely that the Malagasy members of *Telephanus* are strictly congeneric with the New World members of the genus. The Réunion and Mauritius species share some similarities, especially antennal proportions, with *Indophanus* Pal, a monotypic genus from South India placed near *Psammoecus* and *Telephanus* (Pal, 1981). The four Madagascar species share some character states that are closer to *Uleiota* Latreille than to New World *Telephanus*. These include antennomere III more than twice as long as II and possession of a longitudinally raised lateral margin of the frons. In approximately 30 species examined of New World *Telephanus*, antennomere III is no more than 1.5 times the length of II and the frons is not

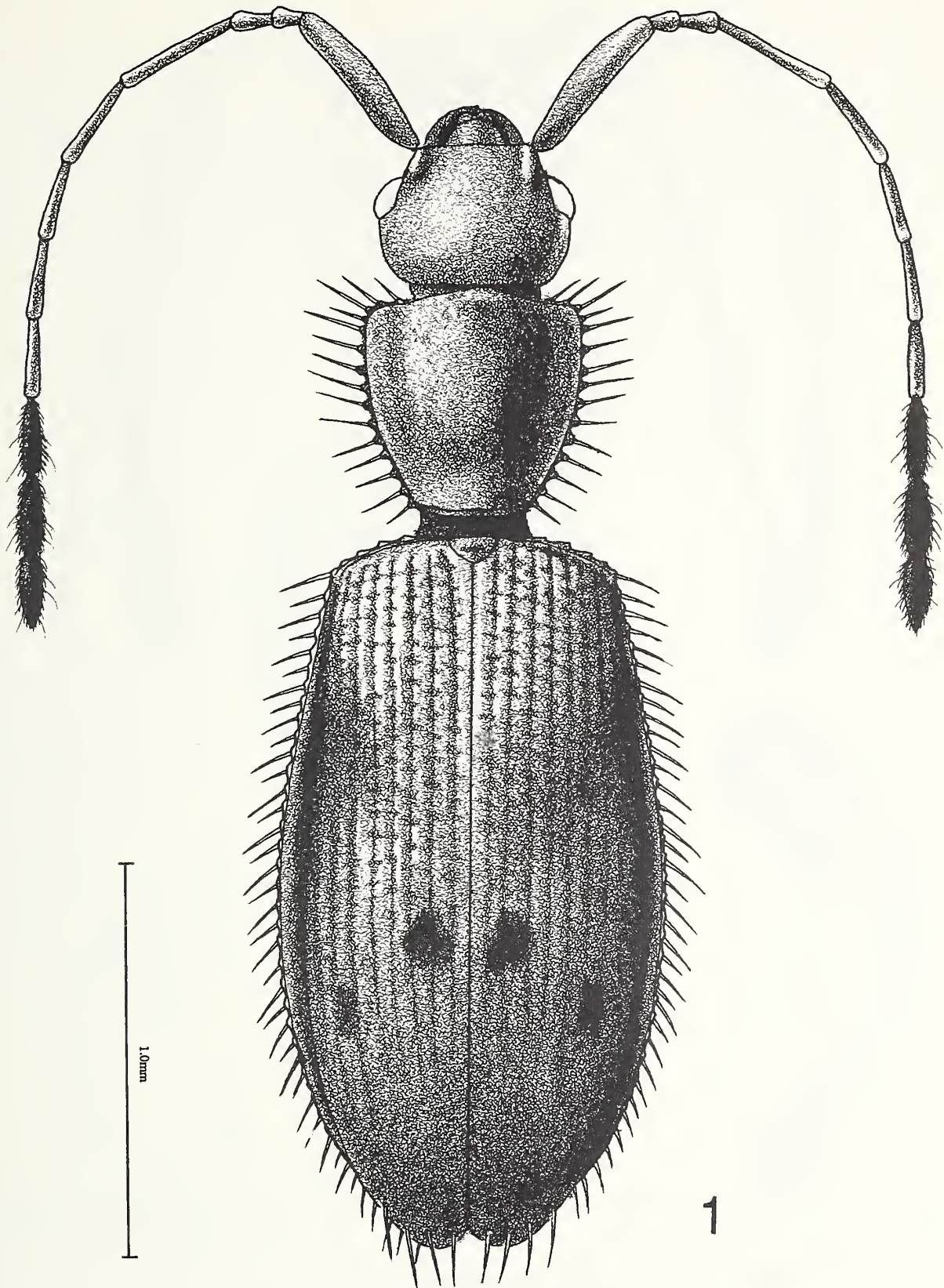


Fig. 1. *Telephanus alluaudi* Grouvelle. Line = 1.0 mm.

laterally margined. The hindwing venation of *T. armatus* (Fig. 14) differs considerably from both *Uleiota dubius* (Fabricius) (Fig. 13) and *Telephanus velox* (Haldemann) (Fig. 15). However, the two species from Mauritius and Réunion resemble New World *Telephanus* in antennal and frontal characters, and it may be that the *Uleiota*-like structures in the Madagascar species represent retention of ancestral character

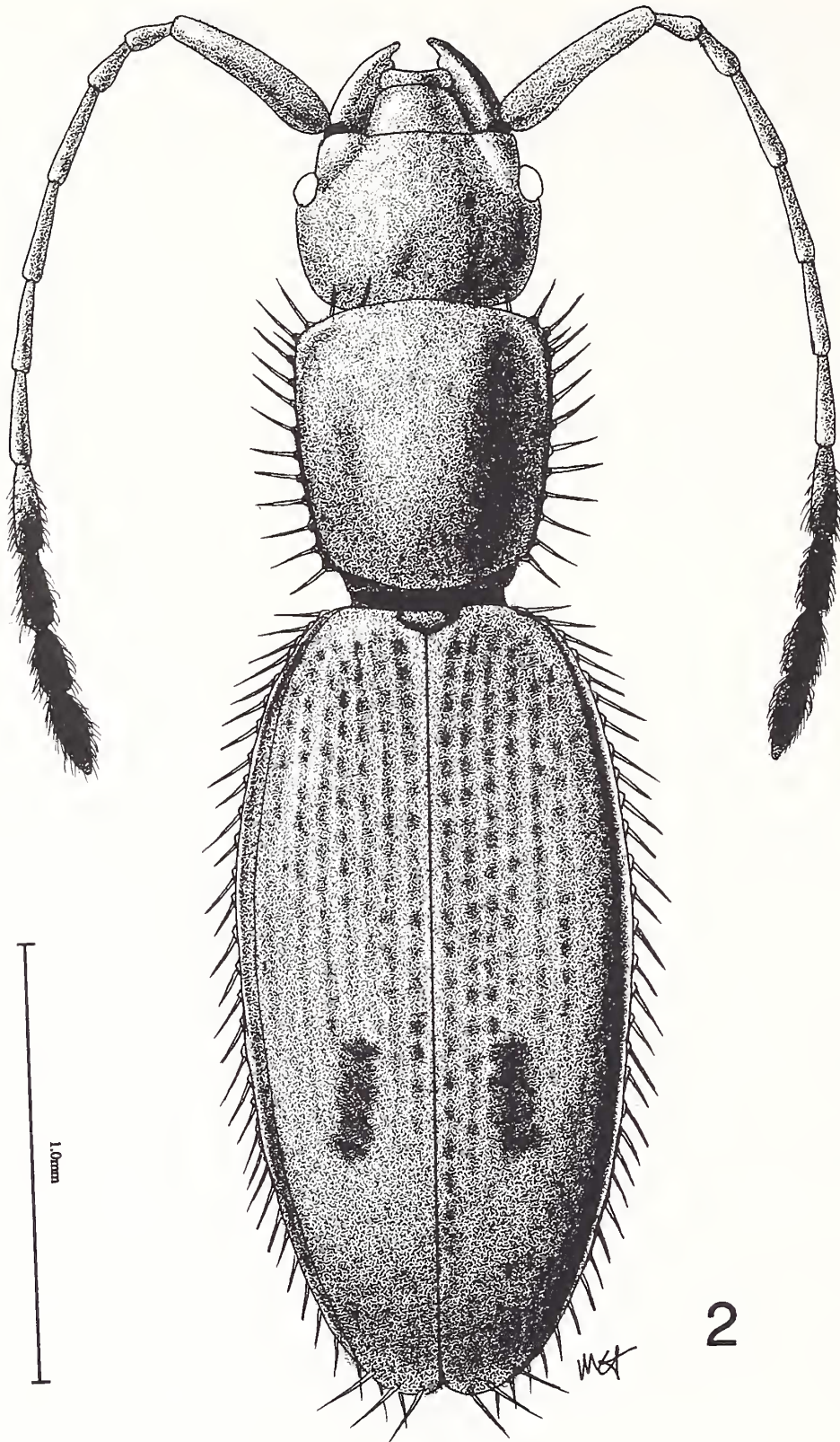


Fig. 2. *Telephanus gomyi*, n. sp. Line = 1.0 mm.

states. For that reason, I am proposing no generic changes at present. The distribution of the species of *Telephanus*, as presently constituted, also is anomalous and suggests that the composition of this genus merits closer study.

The number and disposition of socketed prothoracic spines are important diagnostic features of New World *Telephanus*. Unfortunately, many of the spines are missing from most of the Madagascar specimens examined during this study and

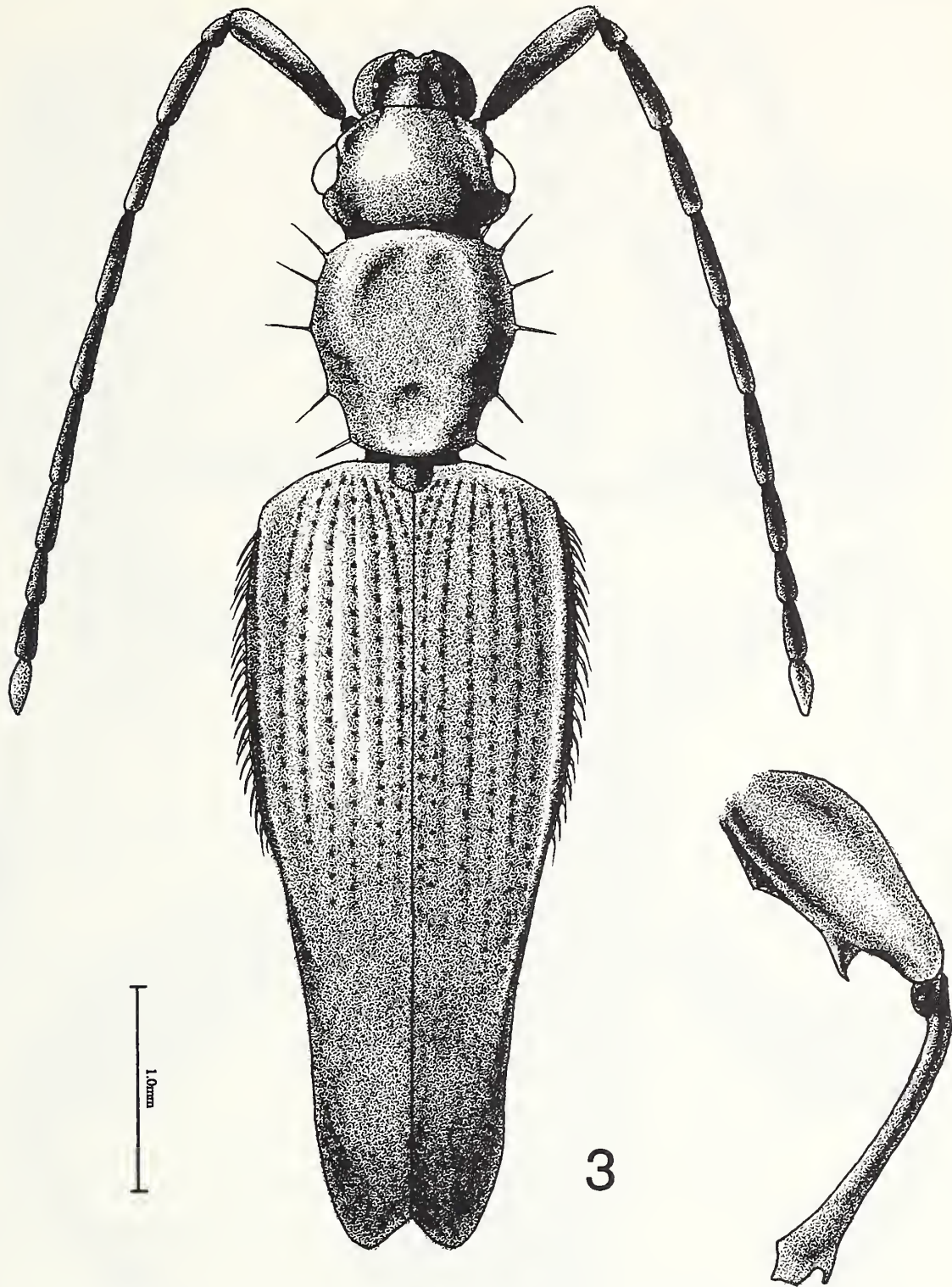


Fig. 3. *Telephanus armatus* Grouvelle, habitus of male. Inset is dorsal view of right hind leg. Line = 1.0 mm.

their presence has been inferred from the empty sockets. The Madagascar specimens examined that bear specific locality information were collected in Antananarivo, spelled either "Annanarivo" or "Antanarivo" on the specimen labels. Members of the type series of three species in the Muséum National d'Histoire Naturelle, Paris were examined by S. A. Slipinski, who affixed lectotype and paralectotype labels to some of the specimens. Since these designations have not been published they are not valid under the International Code of Zoological Nomenclature.

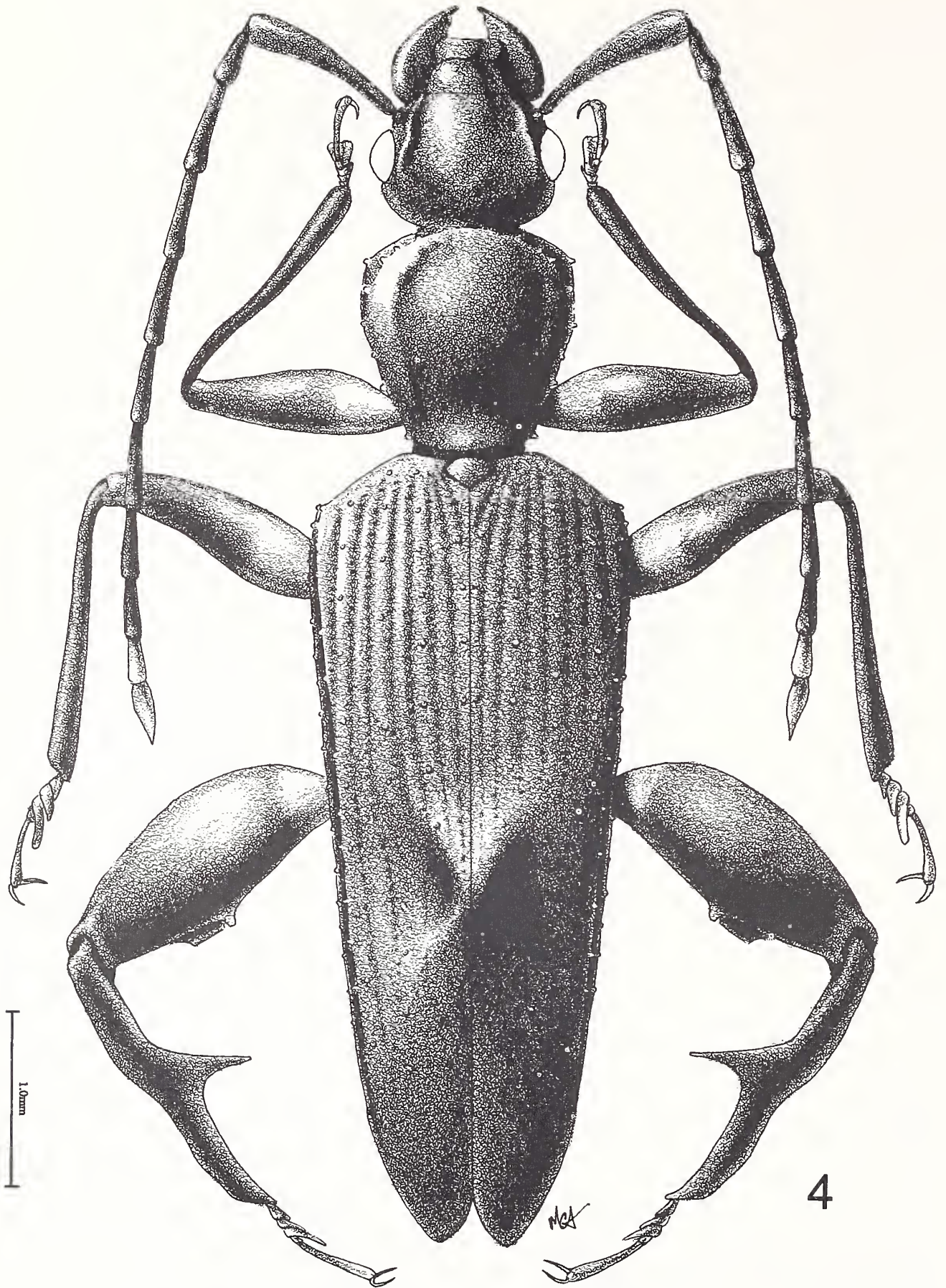
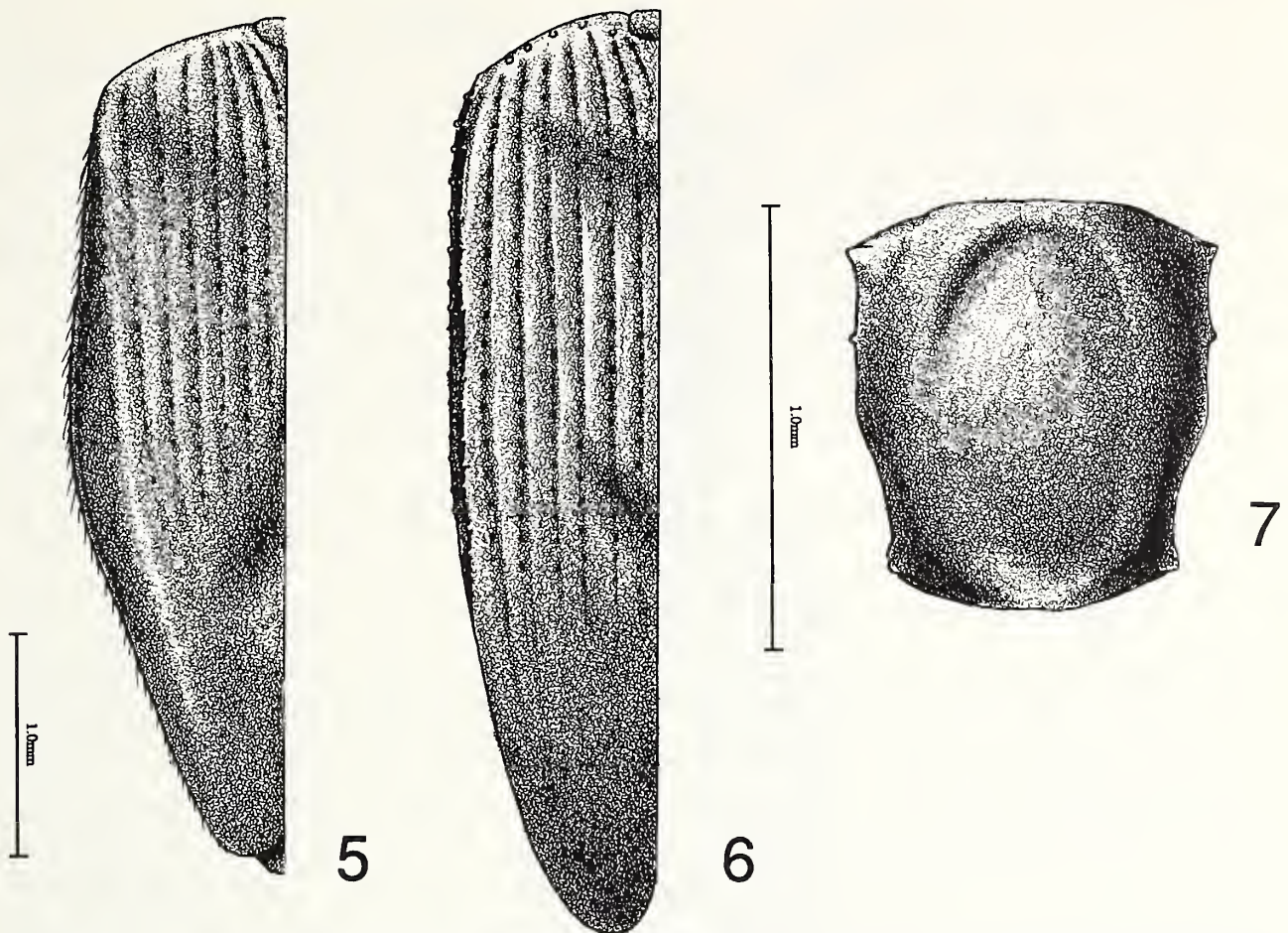


Fig. 4. *Telephanus spinosus* Grouvelle, male. Line = 1.0 mm.



Figs. 5-7. 5. *Telephanus armatus* Grouvelle, left elytron of female. 6. *Telephanus spinosus* Grouvelle, same. 7. *Telephanus cedijs* Schaufuss, pronotum. Lines = 1.0 mm.

Specimens were borrowed from the following institutions:

BMNH = British Museum of Natural History, London. Mr. A. D. Kerley.

MCSN = Museo Civico di Storia Naturale "Giacomo Doria," Genova. Dr. Roberto Poggi.

MNHN = Muséum National d'Histoire Naturelle, Paris. Mlle. Nicole Berti.

MHNG = Muséum d'Histoire Naturelle, Geneva. D. Ivan Löbl.

ZMHB = Museum für Naturkunde der Humboldt Universität zu Berlin, Bereich Zoologisches Museum, Berlin. Dr. Fritz Hieke.

KEY TO THE SPECIES OF *TELEPHANUS* OF THE MALAGASY REGION

1. Terminal antennomeres dark (Figs. 1, 2). Mascarene Islands 2
- Terminal antennomeres pale (Figs. 3, 4, 8). Madagascar 3
- 2(1). Eyes reduced (Fig. 2), elytral humeri rounded; hind wings absent; median lobe sharply constricted medially, flagellum thick (Fig. 10); Réunion Is *gomyi*, n. sp.
- Eyes not reduced (Fig. 1), elytral humeri normal; hind wings present; median lobe not sharply constricted medially, flagellum slender (Fig. 9); Mauritius *alluaudi* Grouvelle
- 3(1). Elytra paler than head and pronotum 4
- Elytra same color as head and pronotum 5
- 4(3). Pronotum with conspicuous tubercles at antero-lateral angles (Fig. 7) *cedijs* Schaufuss

- Pronotum without conspicuous tubercles at anterio-lateral angles (Fig. 8) *gracilis* Schaufuss
- 5(3). Trochanter and basal part of femur pale; hind trochanter in male prolonged posteriorly as acute spine (Fig. 12); hind femur in male armed medially with a blunt spine and a carina (Fig. 4), hind tibia armed with a large spine medially on ventral edge; elytral suture in male elevated at about apical third, appearing “pinched”; lateral margin of elytra in female not explanate (Fig. 6) *spinus* Grouvelle
- Only trochanter pale; hind trochanter in male slightly prolonged posteriorly, truncate; hind femur of male with carina medially and acute spine at about apical third (Fig. 3); hind tibia in male with small tubercle located dorsally near apex (Fig. 3); elytral suture not elevated (Fig. 3); lateral margin of elytra in female explanate (Fig. 5) ..
..... *armatus* Grouvelle

Telephanus alluaudi Grouvelle

Figs. 1, 9

Telephanus Alluaudi Grouvelle, 1899:172

Types. Lectotype, here designated, in MNHN with label data as follows: “I. Maurice Curepipe Ch. Alluaud”/“MUSEUM PARIS 1917 Coll. GROUVELLE”/“*Telephanus alluaudi* Grouv”/“LECTOTYPE Left sp.”/“PARALECTOTYPE Right”/“*Telephanus alluaudi* Gru. det S.A. Slipinski 85” [two specimens glued to the same card]. I select the specimen on the left as lectotype and the specimen on the right as paralectotype; 2, “I. Maurice Curepipe Ch. Alluaud 1897”/“TYPE”/“MUSEUM PARIS coll. Alluaud”/“*Telephanus alluaudi* Grouv” [in Grouvelle’s hand] [two specimens glued to same card; both are paralectotypes].

Type locality. Described from Curepipe, Mauritius, from an unstated number of specimens.

Diagnosis. Adults of this species are most similar to those of the following species, but can be distinguished by their normal humerus (Fig. 1) and metasternum, presence of hind wings, more basally narrowed pronotum (Fig. 1), and structure of the male genitalia (Fig. 9). The elytral maculae (Fig. 1) may be absent. Length 3.0 mm–3.5 mm.

Biology. The only information was provided with the original description: “Captured between the leaves of a small species of *Pandanus*.”

Discussion. This species and the new species described below constitute an easily recognized group within the Malagasy Region components of *Telephanus*, characterized by their small size, coloration, antennal proportions, and male genital structure.

Telephanus gomyi, new species

Figs. 2, 10

Types. Holotype male in MHNG with data as follows: “La Réunion Cirque de Salazie Piton Marmite 1,800 m. 4-1-1972 Tamisage tronc pourri Y. Gomy.” Paratype females, 2, with same data [MHNG].

Diagnosis. Most similar to adults of *T. alluaudi*, adults of this species can be distinguished by their small eyes, lack of hind wings and consequent reduction of the humerus and metasternum, more parallel-sided pronotum (Fig. 2) and structure of the male genitalia (Fig. 10).

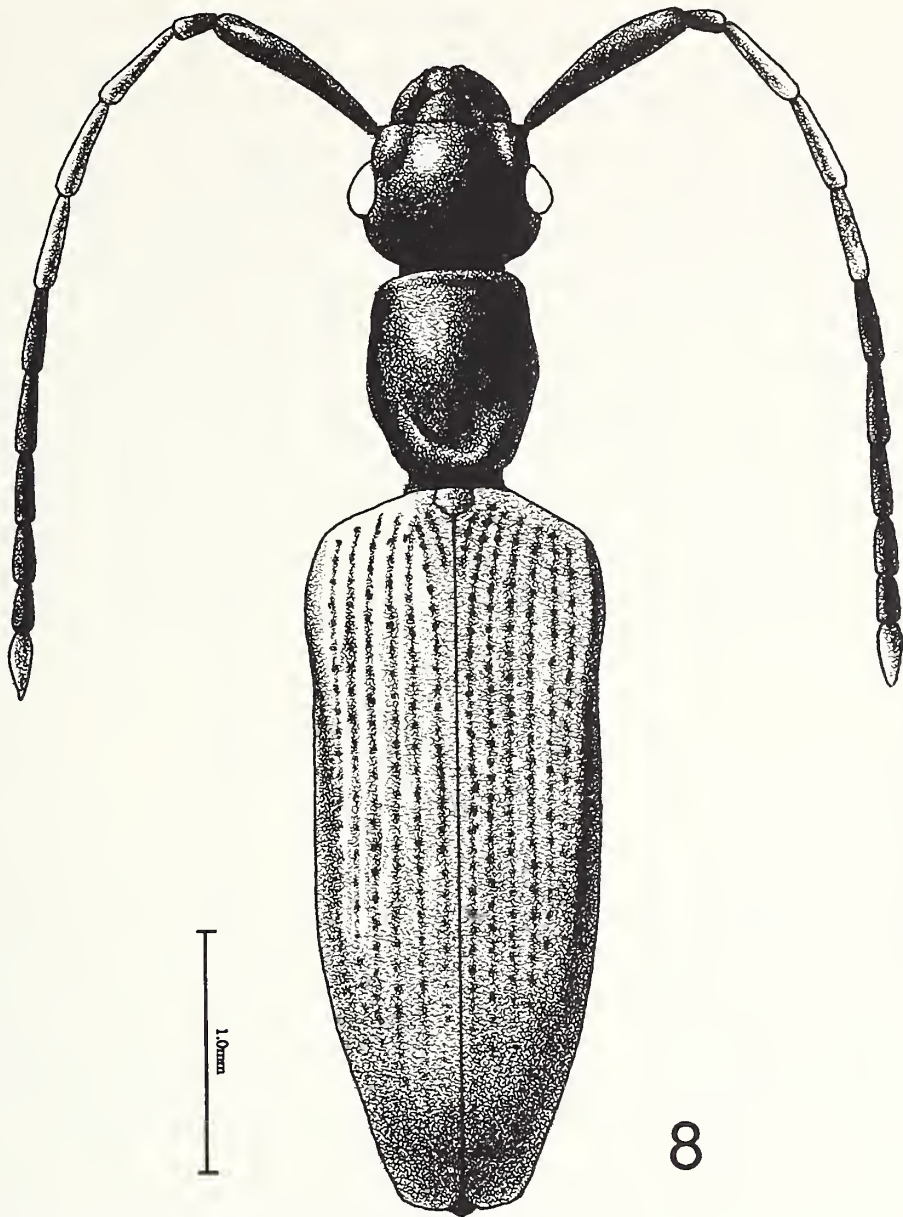
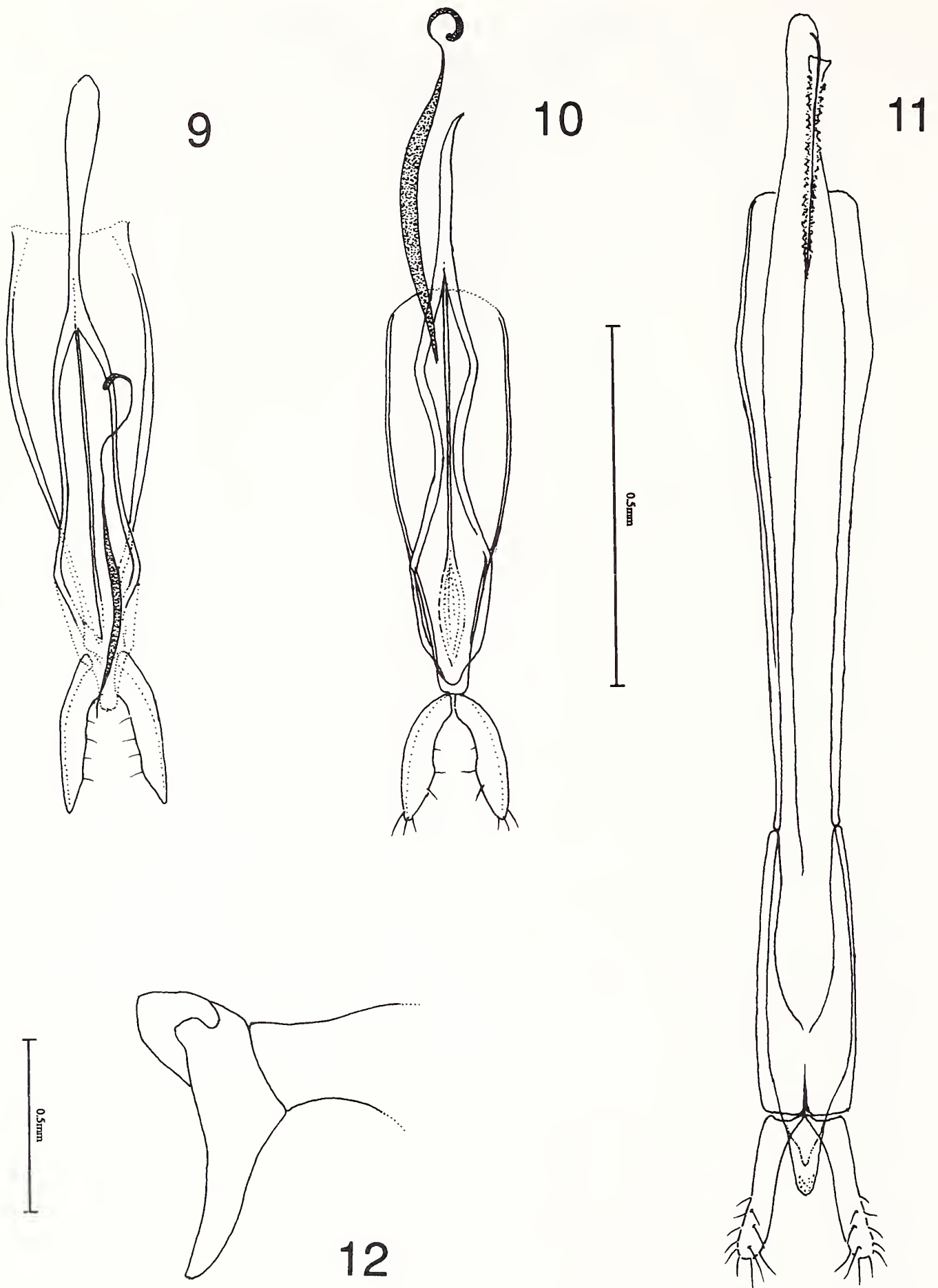


Fig. 8. *Telephanus gracilis* Schaufuss. Line = 1.0 mm.

Description. Elongate, narrow. Pale testaceous, appendages somewhat paler, dark markings as follows: antennomeres IX–XI and apex of VIII, elytral maculae at about apical third. Length 2.8 mm. *Head:* Transverse (1:1.18), broadest just behind eyes. Punctuation absent or obscured by coarse tuberculate microsculpture; pubescence composed of pale, stout, recumbent to suberect setae, directed anteriorly; not obscuring surface. Eyes small, in dorsal view about 5 facets wide, length about 0.18 of head capsule length measured from apex of clypeus to basal transverse groove. Antennae elongate, attaining about midpoint of elytra; scape elongate and stout; antennomere proportions as follows: 5:1:1.25:2.75:2.75:2.5:2.25:2.25:2:2:2.25; antennomeres VIII–XI broader than flagellar portion of antenna. *Thorax:* Pronotum subquadrate, slightly longer than broad (1:0.88); broadest across apical angles, gradually, evenly narrowed basally. Anterior angles right, posterior obtuse. Disk broadly, vaguely longitudinally impressed laterally. Surface sculpture and pubescence as head. Lateral margin, beginning at apical angle, with 11 tubercles armed with spines; two additional tubercles and spines are present on each side of the apical margin and one



Figs. 9-12. 9. *Telephanus alluaudi* Grouvelle, male genitalia. 10. *Telephanus gomysi* Thomas, n. sp., male genitalia. 11, 12. *Telephanus spinosus* Grouvelle. 11. Male genitalia. 12. Male anterior trochanter. Lines = 0.5 mm.

is present on each side below and between the 1st and 2nd tubercles. Elytra somewhat oval in shape (length/width 1:0.48), depressed across basal third, humeral angle absent; lateral margin explanate and with spined tubercles; spines alternating slightly in length; striae composed of large, very shallow punctures; pubescence composed of stout, pale setae; rows of setae alternate suberect and directed posteriorly with recumbent and directed laterally; a few much longer setae near apex. *Male genitalia*: Similar to that of *T. alluaudi*, differing in the more constricted median lobe, less apically acute parameres, and broader flagellum (Fig. 10).

Variation. There are no obvious sexual differences. The two female paratypes are 2.8 mm and 3.0 mm in length. One has immaculate elytra.

Discussion. There are only two other known apterous species of *Telephanus*: *T. darlingtoni* Nevermann (1937) and *T. acrolophus* Thomas (1984), both from the mountains of eastern Jamaica. There do not seem to be any special affinities between the two Jamaican species and *T. gomyi*. This species is named after its collector, Ives Gomy, who collected many rare silvanids and cucujids on Réunion and Mauritius islands.

Telephanus armatus Grouvelle

Figs. 3, 5, 14

Telephanus armatus Grouvelle, 1890:127

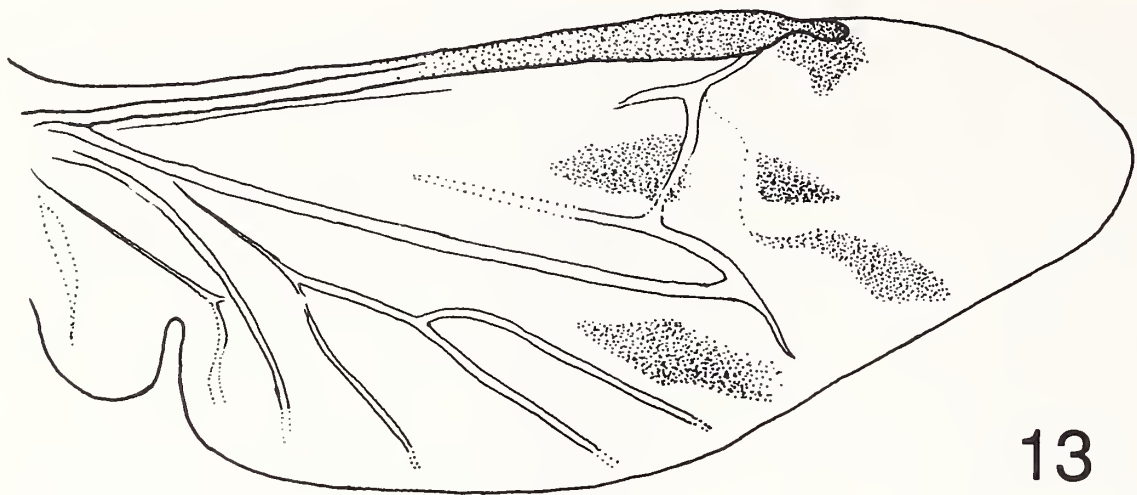
Types. Lectotype, here designated, in MNHN with data as follows: "Madagas."/"exemplaire typique"/"LECTOTYPE"/"MUSEUM PARIS 1917 Coll. GROUVELLE"/"T. armatus A. Grouv"/"Telephanus armatus Grouv det. S.A. Slipinski 85". Paralectotypes, 7, with label data as follows: 1, "Madagas."/"exemplaire typique"/"MUSEUM PARIS 1917 Coll. GROUVELL"/"PARALECTOTYPE"; 1, "Antananarivo 1889 Sikora"/"Telephanus armatus Grouv. (An. M. C. xxix)"/"Museo Civico di Genova"; 5, "Antananarivo 1889 Sikora"/"Museo Civico di Genova" [MNHN, MCSN]. Although specimens from the type series are housed both in Paris and Genova, Grouvelle's "exemplaire typique" labels on the Paris specimens leave little choice in designating a lectotype.

Type locality. Madagascar.

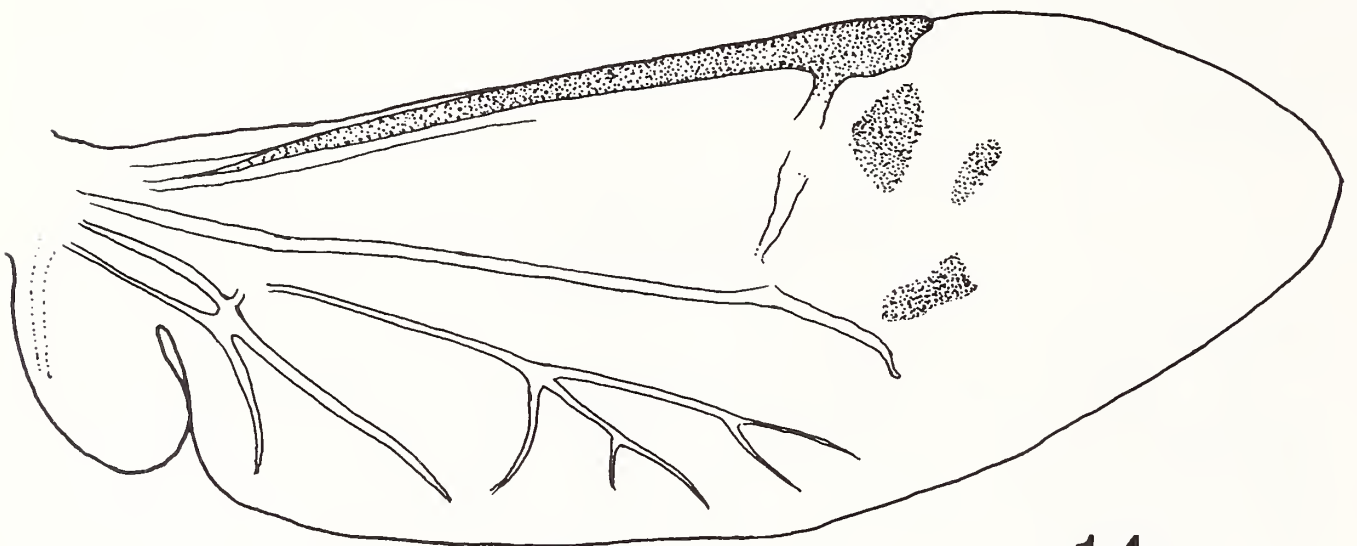
Diagnosis: Adults of this species could only be confused with adults of *spinosus*. In both sexes of *armatus* the femora are unicolorous, while the femora are bicolored in both sexes of *spinosus*. Males of both species are easily distinguished by the secondary sexual characters of the hind legs (Figs. 3, 4), and females by the differently shaped elytra (Figs. 5, 6). Length 5.5 mm–6.0 mm.

Discussion. The type labels on several specimens listed below are explained by the footnote on the page this species is described (Schaufuss, 1893:598): "While at the printers, Mr. Grouvelle tells me that he has described the species under the above name." For this reason, I do not consider that Schaufuss (1893:598) intended to describe this species as new at the time of publication, and the type labels are spurious. Schaufuss (1893:599) described but did not name a variety in which the last two antennomeres are pale; this is merely individual variation as intermediates occur. Nevermann (1931:198) maintained that the date of Schaufuss' publication was 1890 rather than 1893.

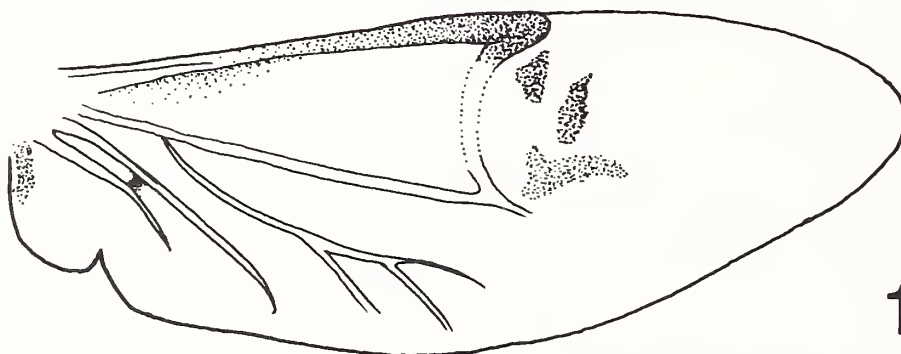
Distribution. Madagascar.



13



14



15

Figs. 13–15. Hind wings. 13. *Uleiota dubius* (Fabricius). 14. *Telephanus armatus* Grouvelle. 15. *Telephanus velox* (Haldeman). Line = 1.0 mm.

Specimens examined. 20, as follows: 1, “Type”/“Madagascar”/“Coll. L. W. Schaufuss”/“*Telephanus armatus* Grouv”/“Zool. Mus. Berlin”; 2, “Coll. L. W. Schaufuss”/“*Telephanus armatus* var. Type Annanarivo”/“Zool. Mus. Berlin” [both on same pin]; 1, “Type”/“*Telephanus armatus* var. Type Annanarivo”/“Zool. Mus. Berlin”; 1, “Type”/“*Telephanus armatus* Grouv. Antanarivo”/“Zool. Mus. Berlin”; 7, “Madagascar”/“Zool. Mus. Berlin” [five on one pin, two on a second pin]; 1, “Mad-

agaskar”/“Zool. Mus. Berlin” [there are three specimens on the same pin, two are female *spinosus*, one is a female *armatus*]; 6, “Madagaskar” [one spelled “Madagascar”]/“Zool. Mus. Berlin”; 1, “Madagaskar Antanarivo Sikora S.”/“Telephanus spinosus Gr. det. S. A. Slipinski” [misidentified]. [ZMHB]

Telephanus spinosus Grouvelle

Figs. 4, 6, 11, 12

Telephanus spinosus Grouvelle, 1890:xcii

Telephanus spinosus Schaufuss, 1893:599, NEW SYNONYM, NEW HOMONYM.

Types. Of *T. spinosus* Grouvelle, lectotype male, here designated, in MNHN with label data as follows: “Madagascar”/“Type”/“MUSEUM PARIS 1917 Coll. GROUVELLE”/“Telephanus spinosus A. Grouv” [in Grouvelle’s hand]/“LECTOTYPE”/“Telephanus spinosus A. Grou. det S. A. Slipinski 81.” Of *T. spinosus* Schaufuss, lectotype female, here designated, in ZMHB with label data as follows: “Type”/“Telephan. spinosus Schauf. II. [female symbol] Annanarivo”/“Zool. Mus. Berlin.” Three other specimens of the type series are in the ZMHB with data as follows: 1, “Type”/“Telephan. spino=sus Schauf. II. [male symbol] Antanarivo Mag”/“Coll. L. W. Schaufuss”/“Zool. Mus. Berlin” [head and pronotum missing]; 1, “Type”/“Telephan. spino=sus Schauf. II. [female symbol] Antanarivo”/“Coll. L. W. Schaufuss”/“Zool. Mus. Berlin” [pronotum and base of elytra damaged]; 1, “Type”/“Coll. L. W. Schaufuss”/“Telephan, spin-sus Schauf. II. [male symbol] Annanarivo Mag”/“Zool. Mus. Berlin” [fragments only].

Type locality. Madagascar.

Diagnosis. See diagnosis of *armatus*, above. Length 6.0 mm–6.9 mm.

Discussion. Schaufuss (1893:599) clearly felt he was describing this as a new species, preceding his description with: “Teleph. spinosus nov. spec,” even though it had been described by Grouvelle (1890:xcii) three years earlier. Schaufuss (1893:600) noted that he had received specimens of this species from Grouvelle. Hetschko (1930) made no mention of this situation in his catalog.

Specimens examined: 6, as follows: 2, “Madagascar”/“Zool. Mus. Berlin” [three cards on pin, one specimen missing]; 1, “Madagascar”/“Zool. Mus. Berlin”; 1, “Madagaskar”/“Telephanus spinosus A. Grouv”/“Zool. Mus. Berlin”; 2, “Madagaskar”/“Zool. Mus. Berlin” [there are three specimens on the same pin, two are female *spinosus*, one is a female *armatus*]. [ZMHB]

Telephanus cediis Schaufuss

Fig. 7

Telephanus cediis Schaufuss, 1893:601

Type. Holotype, in ZMHB with label data as follows: “Telephanus cediis m Type Annanarivo”/“Coll. L. W. Schaufuss”/“Zool. Mus. Berlin”. Head missing, sex unknown.

Type locality. Antananarivo, Madagascar.

Diagnosis. In addition to the key character mentioned above, in the only known specimen of this species the punctuation of the pronotum is coarser and the microsculpture more pronounced than in any of the specimens of *gracilis* examined. Un-

fortunately, the head of the holotype is missing. Schaufuss (1893:601) stated that the antennae of *gracilis* and *cedius* were similar. Schaufuss (1893:601) gave the length of the holotype as 5 mm.

Telephanus gracilis Schaufuss

Fig. 8

Telephanus gracilis Schaufuss, 1893:600

Types. Lectotype, here designated, in ZMHB with following data: "Telephanus gracilis m. Annanarivo Type"/"Coll. L. W. Schaufuss"/"Zool. Mus. Berlin." Sex unknown. Paralectotypes, 6, with label data as follows: 1, "Type"/"Telephanus gracilis m. var. Type Annanarivo"/"Zool. Mus. Berlin"; 1, "Type"/"Telephanus gracilis Schauf. II. Annanariva M."/"Zool. Mus. Berlin" [damaged]; 4, "Coll. L. W. Schaufuss"/"Zool. Mus. Berlin." [ZMHB]

Type locality. Antananarivo, Madagascar.

Diagnosis. Individuals of this species are superficially similar to *cedius* in sharing, according to Schaufuss (1893:601), tricolored antennae. They can be distinguished from those of *cedius* by their lack of prominent tubercles on the anterolateral angles of the pronotum (Fig. 8) and the somewhat sparser pronotal macro- and micro-sculpture. Length 4.6 mm–5.0 mm.

ACKNOWLEDGMENTS

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